## REMARKS

Claims 1-3 and 8-11 are pending in the application. Claims 1-3 are allowed but claims 8-11 are rejected. Claim 8 is amended. New claims 12-13 are added (with modifications to claim 8 shown in these claims by conventional strike/bracket and underlining for discussion purposes only).

As a preliminary matter, Applicants wish to thank the Examiner for the courtesy extended to the Applicants' representatives at an interview conducted on May 12, 2004. A summary of the discussions held at the interview is being submitted separately.

The Applicants also wish to thank the Examiner for withdrawing his previous objection to the specification and a double patenting rejection. Finally, Applicants wish to thank the Examiner for reconsidering the rejection based on the "recapture rule' and for advising Applicants' representative of the Examiner's conclusions prior to the interview, so that significant expenses related to travel of other individuals, who were concerned with that issue, could be avoided.

### *Claim Rejections - Recapture of Inventions: 35 U.S.C. § 251*

Claims 8-11 are rejected under 35 U.S.C. § 251 as being an improper recapture of broadened claimed subject matter surrendered in the application for patent upon which the present reissue application is based, as set forth at pages 28-32 of the Office Action. This rejection has been withdrawn by the Examiner in an Interview Summary (paper 13) sent by the Examiner via facsimile on May 6, 2004.

The basis for the withdrawal is the application of new Guidelines concerning the issue of recapture, as noted in paper 13. The Examiner noted that the limitation related to the "wherein said selecting step" clause formed the basis for allowance of the claims. The Examiner concluded that the arguments presented to the Patent File Examiner pertaining to subject matter other than the added subject matter were not convincing to the Examiner and that it was the added subject matter alone that resulted in allowance. The Examiner notes that in reissue claim 8, the claim is broader in aspects not related to the added subject matter. Further, the added subject matter that caused the allowance is retained in broadened form. The Examiner concludes that "recapture is not barred in this situation."

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The amendment to claim 8, which changes the term "zig-zag" to "predetermined" would fall within the permitted amendments under the Guidelines, according to the Examiner's analysis. Thus, there should be no issue of recapture with respect to the claim. The correction of a grammatical error also does not raise a recapture issue.

The new claims 12-13 are modifications of presently pending claim 8 and fall within the permitted amendments under the Guidelines, according to the Examiner's analysis. Thus, there should be no issue of recapture with respect to these claims.

### Claim Rejections - 35 U.S.C. § 102

**The Examiner has rejected claim 8 as being anticipated by *Kato* (5,559,557).** This rejection is traversed for at least the following reasons.

### Retraction of Arguments to Traverse §102/103 Rejection

### in the Response dated September 2, 2003

As a preliminary matter, Applicants hereby retract all arguments presented in its Response dated September 2, 2003 to traverse the Examiner's § 102 and 103 rejections, without prejudice or disclaimer. For at least the following reason, Applicants' previous § 102/103 arguments are retracted, and therefore should not be considered for patentability or defining the scope of the outstanding claims or claims to have had in the future, or for what *Kato* discloses and/or suggests. That is, Applicants mistakenly combined and described aspects of Kato with one or more aspects of the instant invention. For example, the statement "In particular, referring to Figure 15 of the present invention, S18 corresponds to a quantization step size for an AC component" is incorrect in so much as that the "reference S18" and "Figure 15" refer to aspects of *Kato* and not of the instant invention, while "quantization step size" refers to an aspect of the instant invention. Accordingly, instead of separating and identifying which aspects belong to where, replacement arguments are presented below to traverse the § 102/103 rejections. That is, Applicants submit that *Kato* does not disclose or suggest each and every element of the claims now pending before the Examiner.

### The Examiner's Basis for Rejection Under §102 Rejection in view of *Kato*

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The Examiner's analysis in support of the rejection of claim 8, which appears at pages 33-36 of the outstanding Office Action, takes several positions with regard to limitations that appear in the claim. With regard to the recitation of "setting a plurality of variable length coding tables," the Examiner points to tables in block 704 (for DC and AC coefficients) and block 707 (for DC coefficients - particularly luminance and chrominance in tables 9B and 9C, respectively). The Examiner also asserts that the selecting according to "intra/inter mode information" is met by the operation of block 709 in setting switch 710, the selecting according to "scanning position" is met by block 703 as basis for selecting block 704 for AC coefficients and block 705 for DC coefficients so that tables 9B or 9C are selected. Finally, with regard to the "quantization step size" criterion, the Examiner points to the operation of the modifier 706 to control storage 707 based on code S26, representing a quantization step size.

## Traversal of the Outstanding §102 Rejection in view of *Kato*

Applicants respectfully submit that *Kato* does not disclose or suggest each and every limitation as recited in claims 8-11 and required by MPEP § 2131 for proper § 102 rejection.

The Applicants previously traversed this rejection by asserting that *Kato* does not use a quantization step size, based on the assertion that quantization relates to an AC component of both inter blocks and intra blocks.

The Examiner's position is that the distinction advocated by the Applicants is not reflected in the claims, as there is no reference to AC components. The Examiner points out in the disclosure of *Kato* where the teaching of quantization occurs and, in particular, how *Kato* teaches a selecting step where a plurality of variable length coding tables is selected according to (1) intra/inter mode information, (2) scanning position and (3) quantization step size. The Examiner's analysis at pages 23-27 and 33-37 is quite detailed. However, that detail reveals certain misunderstandings that offer Applicants a clear path toward a conclusion that the claim is not anticipated and is patentable. While the Applicants need not contradict every aspect of *Kato* as understood by the Examiner, an explanation is provided with respect to at least one key aspect of *Kato* that serves to distinguish the present invention.

### inter/Inter Mode Information

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With reference to FIG. 17, *Kato* appears to use a variable length code in a VLC 704 for non-intra picture encoding S706. That same variable length code in the VLC 704 is used for an AC component of intra picture encoding S708. However *Kato* does not specifically state that it uses a table in the VLC 704, though it does state that plural tables in block 707 are used byDC VLC 705. In the absence of an express teaching that a table is used in VLC 704, there cannot be anticipation of a limitation that requires selection on the basis of intra/inter mode information.

### Quantization Criterion

Contrary to the Examiner's stated belief, one of FIG. 9B and FIG. 9C (or one of FIG. 21A and FIG. 21B) of *Kato* is not selected based on a required precision, quantization step width, CTL signal or quantization step size. Rather, as the Examiner at one point cited, whether one table is used as opposed to another is dependent on whether a block being encoded is a luminance Y block or a chrominance Cb/Cr block. (See column 21, lines 42-48 and column 22, lines 7-15.)

Contrary to the Examiner's stated belief, one of FIG. 9B and FIG. 21A (or one of FIG. 9C and FIG. 21B) of *Kato* is not selected based on a required precision, quantization step width, CTL signal or quantization step size. Rather, (FIGS. 21A and 21B) are used instead of (FIGS. 9B and 9C) where added precision is desired. That is, *Kato* discloses using tables of FIGS 9B and 9C instead of the prior art tables of FIGS. 6B and 6C for added precision. As noted by *Kato*, the "tables in FIGS. 9A-9C corresponds to the tables in FIGS. 6A-6C extended to include 9, 10 and 11 bit encoding for additional precision," as the prior art tables only provide for up to 8 bit encoding. (See column 8, lines 20-26, and compare FIGS. 6A-6C with FIGS. 9A-9C.) Similarly, *Kato* discloses using tables of FIGS. 21A and 21B instead of the tables of FIGS. 9B and 9C for 12, 13...M bit encoding. (See column 4, lines 48-52, column 28, lines 41-52, and compare FIGS. 9B and 9C with FIGS. 21A and 21B.) In other words, for example, one of FIG. 9B and FIG. 21A is not selected based on a required precision, as *Kato* does not disclose having both of the tables. Rather, *Kato* discloses that the table of FIG. 9B may be expanded to include 12, 13...M bit encoding, resulting in a table of FIG. 21A to be provided and used instead of the table of FIG. 9B. That is, in another embodiment where up to M bit precision is desired, a table of FIG. 21A is provided and all selection is made form the table of FIG. 21A for luminance. Note that the table of FIG. 21A includes all of the information of the table of FIG. 9B.

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Contrary to the Examiner's stated belief, the modifier 706 of FIG. 17 does not modify the tables of the storage 707, or select, for example, one of FIG. 9B and FIG. 21A (or one of FIG. 9B and FIG. 9C) based on a required precision, quantization step width, CTL signal or quantization step size. Rather, the modifier 706, for example, "functions to control the storage 707, based on intra_dc_precision code S26, to supply only a required portion of the table shown in FIG. 9A to the variable length decoder 705." (See column 21, lines 56-65. Emphasis added by the Applicants.) While the modifier 706 may control the storage 707 to supply the entire table shown in FIG. 9A or to supply the table shown in FIG. 9B where a flag indicates a luminance block, *Kato* does not disclose or suggest selecting, for example, one of FIG. 9B and FIG. 21A. (See column 21, line 66 to column 22, line 16.)

On the basis of the foregoing distinction, the claim cannot be anticipated and the rejection should be withdrawn.

### *Claim Rejections - 35 U.S.C. § 103*

**Claims 9 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of *Kato* (5,559,557) and *Kaneko et al* (4,908,862).** This rejection is traversed for at least the following reasons.

The Examiner admits that *Kato* does not disclose the variable coding tables as having different patterns of a regular and an escaped region. Based upon a broad interpretation of the terms "regular" and "escape" as set forth in pages 36 and 37 of the Office Action, the Examiner concludes that *Kaneko* teaches such feature and that it would have been obvious at the time of the invention to modify the code sets (i.e., tables) of *Kato* by providing different patterns for regular and escape regions as taught by *Kaneko* in order to provide high efficiency of encoding as set forth by *Kaneko* at column 12, lines 8-12.

The claims should be patentable for the reasons given with respect to claim 8 (amended).

**Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of *Kato* and *Kaneko et al* as applied to claim 9 and further in view of *Jung* (UK 2,267,410 A).** This rejection is traversed for at least the following reasons.

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The Examiner admits that the combination of *Kato* and *Kaneko* does not teach the data of the escape region of the variable length coding table selected in the variable coding step being "coded" into data having variable run length and level length." The Examiner looks to *Jung* for such teaching, particularly, at page 8, lines 10-11 and pages 4 and 5. The Examiner concludes it would have been obvious at the time of the invention to code the data of *Kato* and *Kaneko* escape region into data having variable run length and level length as taught by *Jung* in order to reduce the number of bits. This assertion is set forth at pages 38 and 39 of the Office Action.

Applicants respectfully submit that § 103 rejections should be withdrawn as neither *Kaneko* nor *Jung* can remedy the deficiencies of *Kato* described above.

### New Claims

New claims 12 and 13 represent a variation of claim 8, as presently amended to change "zig-zag" to "predetermined." In particular, the new claims focus on specifying the content of the claimed tables, specifically, a table selectable for an AC component of an intra mode that is different from a table that is selectable for an inter mode and a table selected for a DC component of the intra mode. Applicants respectfully submit that *Kato* fails to disclose or suggest at least "a table selectable for an AC component of an intra mode that is different from a table selectable for an inter mode," as recited in claims 12 and 13.

As already noted with reference to FIG. 17, *Kato* appears to use a variable length code in a VLC 704 for non-intra picture encoding S706. That same variable length code in the VLC 704 is used for an AC component of intra picture encoding S708. *Kato* does not specifically state that it uses a table in the VLC 704. Even assuming that use of a variable length code refers to use of a table, *Kato*'s use of such "table" in VLC 704 would be for both non-intra picture encoding S706 and an AC component of intra picture encoding S708. (See FIGS. 17 and 19, column 21, lines 12-33.) No more than a single table could be assumed. In such case, the Examiner's comment at page 34 of the Office Action that block 704 discloses "a table" would be proper, but there is no basis for his assertion at page 35 that there is a disclosure of "tables." Applicants submit that *Kato* does not disclose or suggest "tables" for block 704. There is no mention in the specification of tables, as there is for block 707, which is accessible by block 705.

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If the Examiner believes the otherwise, the Examiner is respectfully requested to point to a specific location in *Kato* for such a disclosure.

Applicants respectfully note that new claims 12 and 13 also recite "a table selectable for an AC component of an intra mode that is different from a table selectable for an inter mode" aspect, and therefore, are allowable at least for the same reason as that of claims 8-11.

Finally, while new claims 12 and 13 have been added to more specifically recite additional unclaimed embodiments of the present invention, Applicants submit that the scope of claim 8 prior to the Amendment and/or any unclaimed embodiments of the present invention are not disclaimed, and may be pursed in one or more Continuing Applications.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

Alan J. Kasper
Registration No. 25,426

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: DRAFT

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